Metcalf & Eddy

October 25, 1991

Ms. Cora Helm
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604

RE: TES X, Work Assignment No. R05039

Subject: Addendum to July 18, 1991 Letter Report, BRC Rubber Group - Dana Victor Products

Dear Ms. Helm:

In response to the September 30, 1991 request from Sherry Estes to Jane Neumann, Metcalf & Eddy, Inc. has recently reviewed both the U.S. EPA Region V files and the Indiana Dept. of Environmental Management (IDEM) files pertaining to the BRC Rubber Group - Dana Victor Products (IND 005 081 526) facility. The purpose of the file review was to glean as much historical information as possible, focusing on manufacturing processes, wastes generated, on-site waste management procedures and waste disposal practices. This information is considered essential to insure the proper closure of the facility with regard to the RCRA regulations. You will find that file materials which support the addition of hazardous constituents wastes not named in the July 18, 1991 letter are attached and highlighted. The following has been divided into two sections: pre-1980 background information and post-1980 background information. The selection of 1980 as a reference year is based on the advent of the RCRA program. While events which predate that year are not germane, it could not be conclusively determined from the review that Dana modified their waste management and disposal practices to comply with the regulations at that time. Since some of the practices could have some bearing on the closure, the background materials which describe them have been assessed here to the extent possible.

Pre-1980 Background Information

An Indiana Board of Health memorandum to Dana dated November 23, 1976 was located. This memo discussed Dana's historic practice of spreading insoluble iron-zinc complex waste on land owned by Dana. Whether this refers to land disposal activities (D80) at the subject property cannot be positively confirmed from the memo itself. The memo mentions that this practice had ceased and that this same waste was instead being stored on plant property. Detail regarding storage methods are not provided. The memo implies Dana had not yet found an alternate location to dispose of this waste at the time.

85 W. Algonquin Road, Suite 500, Arlington Heights, Illinois 60005-4422
Tel: 708 228-0900 FAX: 708 228-5013

A letter dated August 25, 1977 from Mr. Arnold Barth of Dana to Mr. Bruce Palin of the Indiana State Board of Health. Laboratory analysis pertaining to their sludge is attached to the letter. It reports quantities on a dry weight basis of cadmium, chromium and lead, all three of which are addressed under the RCRA program. No direct determination of RCRA applicability can be made from the laboratory data since the methodology employed differs from that specified in the regulations. The letter states that the sludge had been disposed off site at the Fort Wayne Disposal Yard, presumably neither a hazardous waste nor special waste landfill. The State Board of Health responded in a letter dated September 7, 1977. They recommended that Dana dispose of the sludge waste at Adams Center Landfill due to its "significant concentrations of heavy metals."

In a letter dated October 17, 1978 from Mr. Roger Stemen, consultant to Dana, to the Indiana State Board of Health, a proposed wastewater treatment system is discussed. It is not certain whether this system was ever installed. If it was put into operation as described in the letter, the lagoon would warrant sampling for heavy metals and cyanides due to its proposed use in storing electroplating sludge.

Post-1980 Background Information

A 1987 Generator Biennial Report from BRC to IDEM indicated that 18,000 tons of PCB-related wastes had been disposed of as well as 2,400 pounds of K086 (washes and sludges generated from the formulation of ink, normally hazardous due to its lead and chromium content) waste. This document is difficult to interpret with regard to the K086 waste since BRC claims that they are not, nor have they ever, been a generator of RCRA hazardous waste. The PCB waste, of course, is not governed under RCRA.

A copy of an amended Part A application dated January 11, 1983 was obtained. It was not determined whether EPA/IDEM ever accepted this amendment. It deletes tank storage (T02) and on-site landfill (D80) activities. It deletes F007 (spent cyanide plating bath solutions from electroplating operations), F009 (spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process) and D001 (ignitable) wastes. It also increases the volume of container storage (S01) activity.

Additional Findings

Mr. Kevin Hogan, IDEM-Special Projects apparently was involved in the state-supervised PCB clean-up action. We were not able to contact him directly. Although the PCB clean-up is outside of the RCRA closure scope, he may be able to provide additional insight or information which could be of help in the preparation of EPA's case. IDEM has extensive files pertaining to the clean-up action. Our review could not verify whether IDEM has ever accepted/approved the action. IDEM approved the Work Plan in August of 1987 and the work was completed in March of 1988. Of interest, the files indicate that prior to 1969, process wastes generated by Dana were disposed to the on-site oxidation pond and septic tanks via a system of ditches. It is believed that most of these soils were excavated to some

depth and removed from the site during the PCB clean-up. Soil analysis of the action was limited to PCBs. Analysis of other possible contaminants was not conducted during the remediation. A June 26, 1987 memo discusses that if solvents were present in any of the PCB areas of concern, the mobility of the PCBs could be significantly enhanced. The Record of Completed Activities prepared by O. H. Materials dated April 5, 1988 references "PCB mobility modeling" (p. 1-3, 3-6). It is assumed that the model would assume either dry soils or water saturated soil conditions, devoid of solvents. These assumptions could result in insufficient soil excavation during remediation. Additional PCB analysis at greater depth, as well as analysis for solvent presence could be conducted, especially in the oxidation pond and associated water courses.

In 1969, Dana ceased the practice of disposal of these wastes on site. Instead, they connected to the town of Churubusco's wastewater treatment plant and sent the process liquid wastes there for disposal. The treatment plant disposed of its sludge by land application, a common practice. The sludge was sampled and found to contain PCBs which were traced through the sewer system to Dana. It was this action which prompted what appeared to be a September 1986 Agreed Order between Dana, the town of Churubusco and IDEM for the PBC clean-up.

A municipal well is located on the property retained by Dana across the street. This is a back-up well, not always in use. In 1987, it was sampled by the local Board of Health and analyzed for PCBs and a few volatile constituents. No contamination by these constituents was detected; however the sampling methodology for volatile organics is very specific. If this protocol was not properly followed, the volatiles would likely have escaped from the sample prior to its analysis. Since the municipal well has the potential to serve a significant population, it is recommended that a Priority Pollutant analysis be conducted on the well water to insure its compliance with the Maximum Containment Levels (MCLs). No record of well water analysis for heavy metals was found. Attached to a June 26, 1987 IDEM memo is a sketch showing additional residential wells in the area.

Based on this file review and past investigation, we believe the following hazardous wastes/constituents may have been released to the environment at the Churubusco facility:

cadmium	*1,1,2-trichloroethane
chromium	*chlorobenzene
lead	*1,1,2-trichloro-1,2,2-trichfluoroethane
possibly other heavy metals	*ortho-dichlorobenzene
cyanides	*trichlorofluoromethane
methyl alcohol	*cresols
methyl isobutyl ketone	*cresylic acid
benzene	*nitrobenzene
*tetrachlorethylene	*toluene
*methylene chloride	*methyl ethyl ketone
*trichloroethylene	*carbon disulfide

*1,1,1-trichloroethane	*isobutanol
*carbon tetrachloride	*pyridine
*chlorinated fluorocarbons	*2-ethoxyethanol
characteristic - ignitable	*2-nitropropane
characteristic - corrosive	
characteristic - reactive	

(*) denotes F001-F005 hazardous constituents for which the spent solvents are listed (Ref.40 CFR 261,Appendix VII)

The extensive listing of solvent-related constituents was included because there is frequent mention in the files of Dana's waste solvent generation; however we were not able to verify what type of solvents were used. Consequently, we've provided a more exhaustive list.

Benzene was indicated due to the practice of storing waste oil on site. It, as well as all of the heavy metals, is normally analyzed (for purpose of closure) for total quantity present as opposed to by the TCLP method. These values would then be compared against background conditions to verify clean-closure.

Additional locations requiring RCRA closure may also be justified based on the file review. The oxidation pond and associated ditching as well as the septic tank area named in the July 18, 1991 letter should be considered. Aerial photos beginning with 1966, the year in which Dana began operations at the site, may provide additional information as to the location(s) of on-site disposal of insoluble iron-zinc complex waste and other process wastes since these locations were not specified in the background documents. The location of the waste collection pit mentioned in the November 23, 1976 letter may also warrant closure. Its location is not adequately described in the text.

If it is determined that one of the following took place: 1) on-site land disposal; 2) leaking underground storage tank activities or 3) surface impoundment activity at the facility as described in 40 CFR 265.110, then post-closure requirements will also apply to the facility. These possibilities will not be explored herein.

We hope that the information provided here will be of help to you. Should you require further technical assistance in this matter or wish to discuss this letter, please feel free to contact me at (708) 228-0900.

Very truly yours,
Metcalf & Eddy, Inc.

Gail Artip

Gail Artip
Contractor Project Manager

cc: file
Tom Lentzen